



Heterocentron evansii (Melastomataceae): A New Species from
Pico Bonito National Park, Honduras

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ABSTRACT. *Heterocentron evansii*, known only from the higher slopes of Pico Bonito in northern Honduras, is described, illustrated, and compared with the species of subgenus *Schizocentron* to which it is here assigned. It is unique among congeners in having a combination of penninerved leaves, densely pubescent foliage and cauline internodes, glandular hairs on the prolonged connective of the larger anthers, and in occupying rocky ridgetops above tree line. This new species is the only *Heterocentron* restricted to Honduras and one of three species of Melastomataceae thought to be endemic to the country.

Heterocentron, with about 28 species, is one of two genera in the Melastomataceae with a distribution restricted to Mexico and Central America (Almeda, 1993). Since it has been the subject of a recent revision (Whiffin, 1972), *Heterocentron* has generally been regarded as one of the better known genera of neotropical Melastomataceae. Species of this family frequently colonize windswept ridgetops throughout the Neotropics, so it comes as no surprise that exploration of these sites continues to yield new and unusual taxa. Such is the case with the new species described below, which stands apart from all described species of *Heterocentron* by virtue of its copiously hirsute cauline indument and densely pubescent foliage. This, coupled with its apparent restriction to an exposed, rocky ridgetop on a previously unexplored mountaintop in the largest national park in Honduras, makes it especially notable. Like *Henriettella hondurensis* Wurdack and *Miconia celaquensis* Almeda, the other two species of Melas-

tomataceae believed to be endemic to Honduras (Almeda, 1996), the affinities of *Heterocentron evansii* are with congeners restricted to montane areas of Guatemala and southern Mexico.

Heterocentron evansii Almeda, sp. nov. TYPE: Honduras. Atlántida: narrow crest of ridge leading up to Pico Bonito from the NE (from near confluence, at ca. 500 m elevation, of Río Bonito and a large quebrada flowing from the SW), 15°38'N 86°52'W, 1900 m, 23 Apr. 1996 (fl & fr), R. J. Evans 2553 (holotype, CAS; isotypes, EAP, MEXU, MO). Figure 1.

Frutex humifusus, ramuli quadrangulati demum rotundato-quadrangulati sicut petioli foliorum venae primariae subtus hypanthiaque densiuscule setosi pilis plerumque 0.5–1 mm longis laevibus pro parte glanduliferis. Lamina 1.4–2.9 × 0.9–1.9 cm elliptica vel ovato-elliptica, penninervis, supra dense strigosa pilis laevibus 0.5–1 mm longis persistentibus, subtus dense strigosa pilis laevibus 0.5–1 mm longis. Flores 4-meri in axillis foliosis superioribus solitarii, pedicellis 1.6–2.6 cm longis. Stamina dimorphica; filamenta 7 mm vel 5 mm longa. Stamina maiora: thecae 4.5–5 × 0.5–0.75 mm; connectivum 2 mm prolongatum ad basim glandulis 0.25–0.5 mm stipitatis ca. 2 ornatum. Stamina minora: thecae 3 × 0.5 mm; connectivum ca. 0.1 mm prolongatum. Ovarium 4-loculare; semina 0.5 mm longa.

Low, procumbent, perennial subshrub with trailing branches to 1 m long and upright leafy axillary branchlets typically less than 8–9 cm in length. The quadrate to rounded-quadrate cauline internodes densely hirsute with spreading, smooth, brown hairs 0.5–1 mm long. Leaves of a pair essentially equal in size; petioles 3–12 mm long, densely hirsute like the

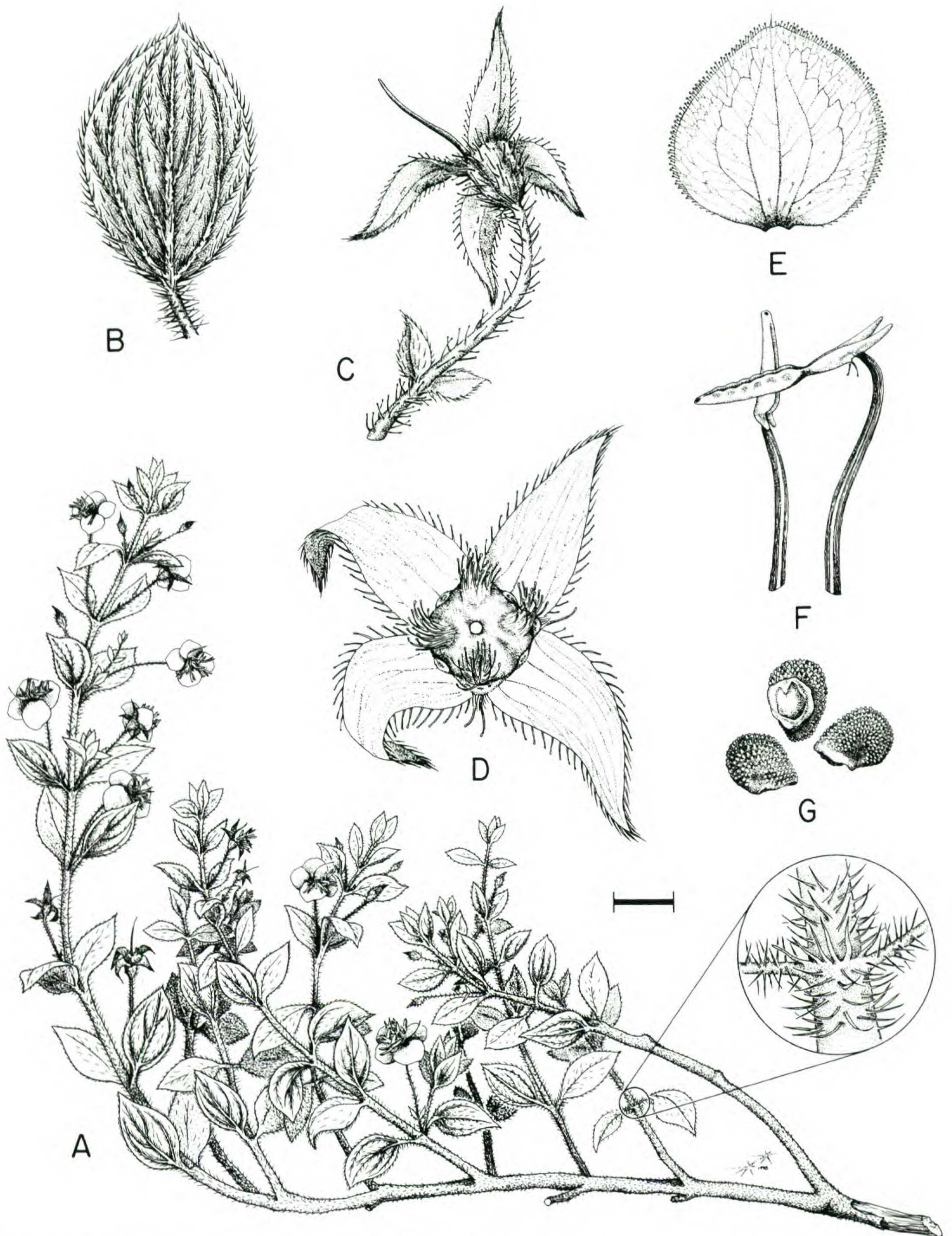


Figure 1. *Heterocentron evansii* Almeda. —A. Habit with enlargement of pubescence details at a node. —B. Representative leaf, abaxial surface. —C. Hypanthium and bibracteolate pedicel. —D. Hypanthium (top view) showing calyx lobes and ciliate scales on ovary summit. —E. Petal, abaxial surface. —F. Antepetalous stamen (left) and antesepalous stamen (right). —G. Seeds. Scale: for A, bar = 1.5 cm; for B, bar = 4.5 mm; for C, bar = 5 mm; for D, bar = 2.25 mm; for E, bar = 2.4 mm; for F, bar = 2.5 mm; for G, bar = 0.4 mm. (A–G from the holotype.)

cauline internodes; mature blades $1.4\text{--}2.9 \times 0.9\text{--}1.9$ cm, elliptic to elliptic-ovate, penninerved, abruptly acute at the apex, acute at the base, the margin entire to subentire, ciliate, adaxial surface densely covered with \pm appressed, smooth hairs mostly 0.5–1 mm long, the abaxial surface also copiously but not as densely covered with antrorsely spreading, smooth hairs 0.5–1 mm long on and between the elevated veins. Inflorescence consisting of solitary flowers, sometimes crowded and appearing terminal or pseudoterminal on short ascending lateral branchlets. Pedicel 1.6–2.6 cm long, copiously covered with spreading glandular hairs mostly 0.25–0.75 mm long; bracteoles at the base of each pedicel sessile, $3\text{--}6 \times 2\text{--}3.5$ mm, ovate to cordate, acute at the apex, the margin entire; adaxially glabrous or with smooth appressed hairs \pm restricted to the margins, abaxial surface sparsely to moderately strigose with smooth \pm appressed hairs 0.5 mm long. Hypanthium (at anthesis) $5\text{--}6 \times 4\text{--}6$ mm, typically flushed with red like the calyx lobes, campanulate, copiously pubescent with spreading mostly glandular hairs 1–2.5 mm long. Calyx lobes 4, narrowly triangular, $7\text{--}8 \times 2$ mm, acute at the apex with a terminal, typically gland-tipped hair, glabrous adaxially and sparingly beset abaxially with a few appressed, simple (sometimes gland-tipped) hairs 0.25–0.5 mm long, the margin glandular-ciliate (in part). Petals 4, reportedly violet, $7\text{--}10 \times 5\text{--}8$ mm, glandular-ciliolate. Stamens 8, markedly dimorphic, differing in size and form, anther thecae glabrous, linear-oblong, yellow (fide label data on the type). Large (antesepalous) stamens: filaments glabrous, 7 mm long, thecae 4.5–5 mm long, 0.5–0.75 mm wide, \pm horizontal to somewhat ascending; connective prolonged 2 mm below the thecae, modified ventrally at the filament insertion into a bifid appendage 1.5–1.75 mm long, the connective beset dorsally with two (rarely one) spreading glandular hairs positioned 0.25 mm above the filament insertion. Small (antepetalous) stamens: filaments glabrous, 5 mm long, thecae 3 mm long and 0.5 mm wide, erect, connective prolonged below the thecae ca. 0.10 mm and modified ventrally into a bifid appendage ca. 0.25–0.5 mm long. Ovary elliptic, glabrous but crowned with four ciliate scales surrounding the stylar scar. Style 8–10 mm long, declined to one side of the flower opposing the larger stamens. Fruiting hypanthium campanulate, 7–8 mm long to the torus and 5–6 mm wide with a somewhat pustulate or muriculate-tuberculate surface formed by the enlarged hair bases. Seeds cochleate and tuberculate, 0.5 mm long.

Distribution. Known only from the type locality on a dry, windswept ridgetop with thin, rocky soil and exposed outcrops above primary lower montane

moist forest of *Pinus*, *Liquidambar*, and *Clusia* in Pico Bonito National Park in northern Honduras. This largest of Honduran parks, with 168,000 acres, protects an elevational range from near sea level to 8000 ft. (Wallace, 1992).

In the most recent taxonomic treatment of *Heterocentron*, Whiffin (1972) recognized two subgenera. *Heterocentron* subg. *Heterocentron*, which includes the majority of described species, is distinguished by its erect suffrutescent to subshrubby habit, penninerved leaves, few- to many-flowered, paniculate inflorescences, and white or pink (rarely purple) petals. For those species characterized by a procumbent suffrutescent to shrubby habit, trinerved (rarely penninerved) leaves, solitary flowers, and purple petals, Whiffin proposed the as yet unpublished subgenus "*Schizocentron*." In this latter grouping he included *H. elegans* (Schlechtendal) Kuntze, *H. hirtellum* (Cogniaux.) L. O. Williams, *H. purpureum* S. Winkler, and *H. suffruticosum* Brandegee, all of which have patchy or restricted distributions in southern Mexico and/or northern Central America.

By virtue of its habit, inflorescence type, and petal color, *H. evansii* is here assigned with certainty to subgenus *Schizocentron*. It differs from other species in this subgenus by a diagnostic suite of characters that includes copiously hirsute cauline internodes, a dense foliar indumentum of smooth hairs, consistent presence of two (rarely one) glandular hairs on the prolonged connective of the larger anthers, and persistent pustulate or muriculate-tuberculate hair bases on fruiting hypanthia. Among the species enumerated above, *H. evansii* appears to be most similar to *H. suffruticosum* of Chiapas, Mexico, and adjacent Guatemala. These are the only two species in subgenus *Schizocentron* that share the penninerved leaves of subgenus *Heterocentron*. In other features, *Heterocentron suffruticosum* differs markedly from *H. evansii* in its erect or suberect habit, and in having appressed pubescent or subglabrous hypanthia and cauline internodes, basally roughened hairs on hypanthia and internodes, modally larger leaves ($15\text{--}50 \times 12\text{--}45$ mm), and glabrous anther connectives.

The distinctly trinerved leaves of the other three species of subgenus *Schizocentron* readily set them apart. Only *H. elegans*, which also occurs in Honduras, has the habit and mostly glandular, spreading hypanthial hairs characteristic of *H. evansii*. In *H. elegans*, however, the trailing branches commonly root at the nodes, and the mature, ovate to oblong-ovate leaf blades are sparsely to moderately appressed-strigose on both surfaces. One other species, *H. hondurensis* Gleason, is also recorded from Honduras. The

following key is provided to facilitate identification of the three species now known from that country.

KEY TO THE SPECIES OF *HETEROCENTRON* IN HONDURAS

- 1a. Flowers solitary; petals purple or deep magenta; southern Mexico, Guatemala, and Honduras.
 2a. Principal leaves trinerved with all primary nerves arising from a common point at the base of the blade; distal internodes sparsely to copiously covered with smooth, appressed hairs; southern Mexico (Hidalgo, Puebla, Veracruz, and Chiapas), Guatemala, and Honduras *H. elegans* (Schlechtendal) Kuntze
- 2b. Principal leaves penninerved with the primary nerves diverging from the median nerve in subopposite to irregularly alternate fashion at successive points above the base of the blade; distal internodes densely covered with smooth, spreading hairs; Honduras *H. evansii* Almeda
- 1b. Flowers borne in few- to many-flowered dichasia; petals white or pink; El Salvador, Honduras, and Nicaragua *H. hondurensis* Gleason

I take pleasure in naming this species for Randall J. Evans, collector of this and other noteworthy species of flowering plants in the course of his recent fieldwork in tropical America.

Acknowledgments. I thank Jenny Speckels for preparing the line drawings, Gerrit Davidse for tracking down duplicate collections at MO and having them dispatched to me in expeditious fashion, and Randall J. Evans for providing additional information on the type locality.

Literature Cited

- Almeda, F. 1993. *Stanmarkia*, a new genus of Melastomataceae from the volcanic highlands of western Guatemala and adjacent Mexico. *Brittonia* 45: 187–203.
- . 1996. A new *Miconia* (Melastomataceae) from Celaque National Park, Honduras. *Novon* 6: 319–322.
- Wallace, D. R. 1992. Unfathomed Forests. *Pacific Discovery* 45: 30–35.
- Whiffin, T. 1972. A Systematic Study of the Genus *Heterocentron* (Melastomataceae). Ph.D. Dissertation, University of Texas, Austin.